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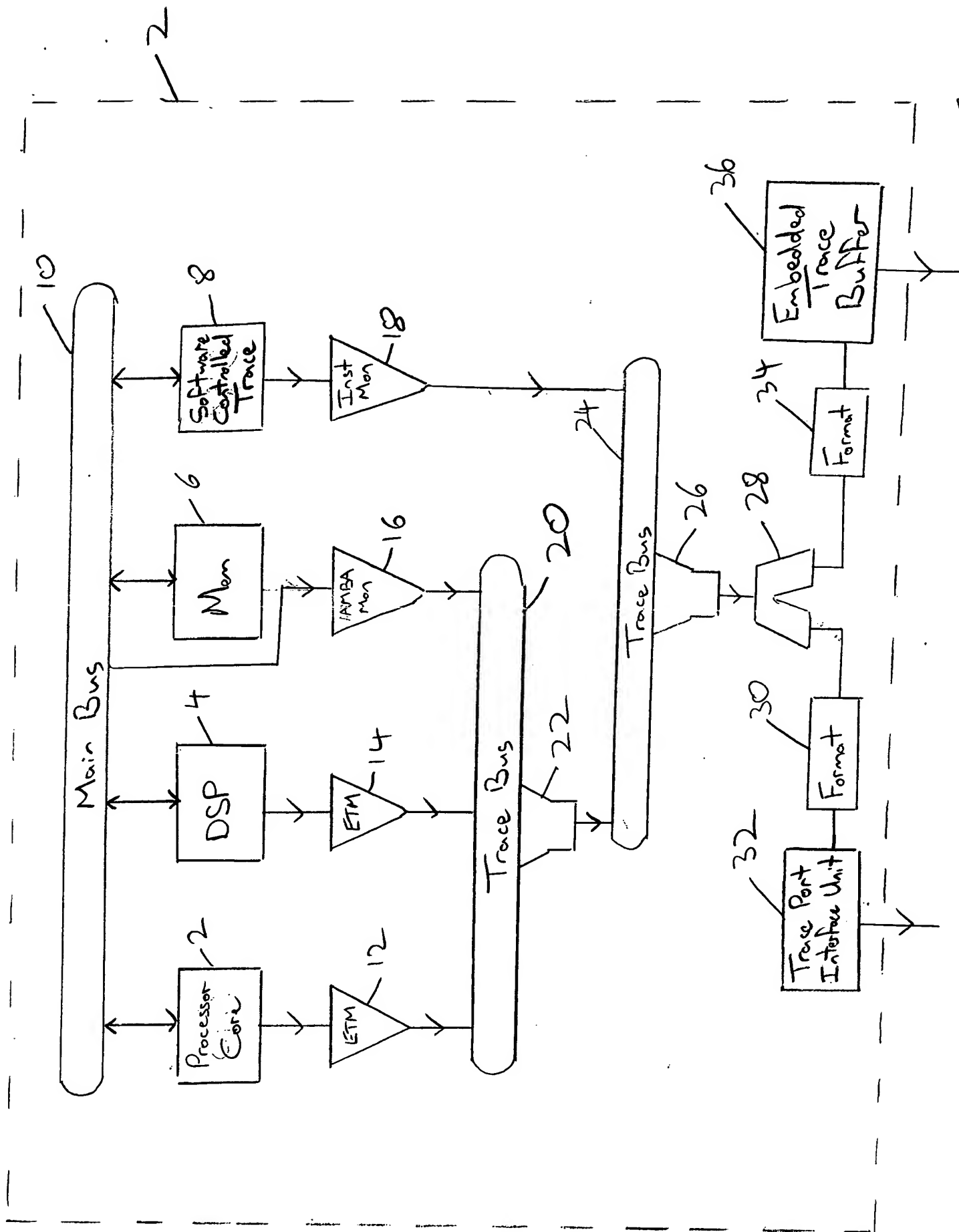


Fig. 1

DATA<sub>in</sub>      A      B      B      C

DATA<sub>out1</sub>      A      B      B      X

DATA<sub>out2</sub>      A      B      B      X

VALID<sub>in</sub>      \_\_\_\_\_

VALID<sub>out1</sub>      \_\_\_\_\_

VALID<sub>out2</sub>      \_\_\_\_\_

READY<sub>n1</sub>      \_\_\_\_\_

READY<sub>n2</sub>      \_\_\_\_\_

READY<sub>nIN</sub>      \_\_\_\_\_

$$DATA_{out1} = DATA_{out2} = DATA_{in}$$

$$READY_{nIN} = READY_{n1} \mid READY_{n2}$$

$$VALID_{out1} = VALID_{in} \& !mask1$$

$$VALID_{out2} = VALID_{in} \& !mask2$$

@ positive clock

$$mask1 \leftarrow (READY_{n2} \& VALID_{out2})$$

$$\& ! (READY_{n1} \& VALID_{out1})$$

$$mask2 \leftarrow (READY_{n1} \& VALID_{out1})$$

$$\& ! (READY_{n2} \& VALID_{out2})$$

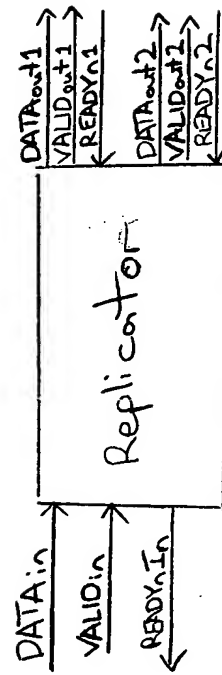


Fig. 2

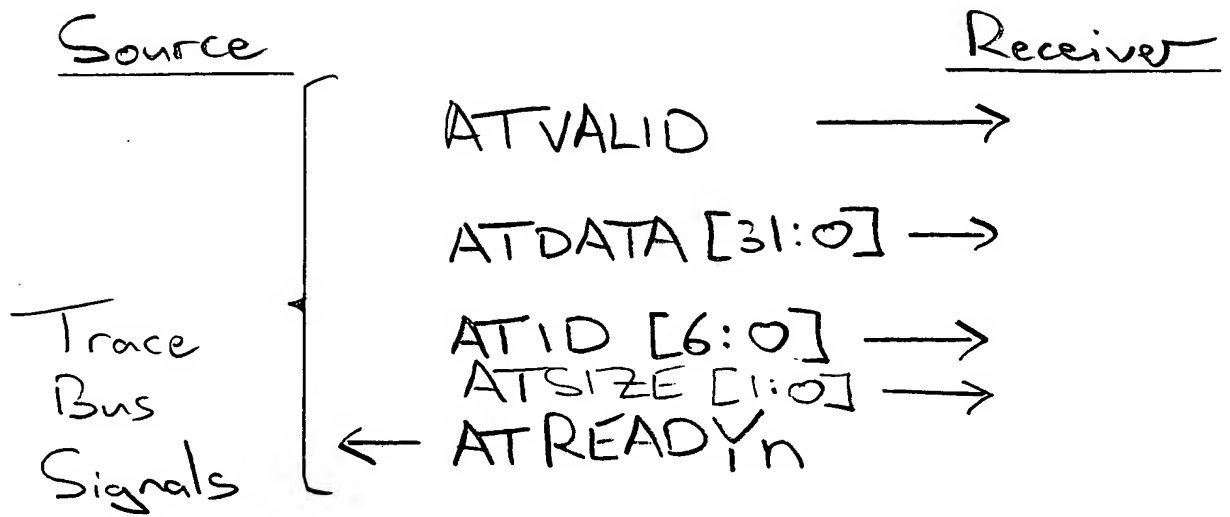


Fig. 3

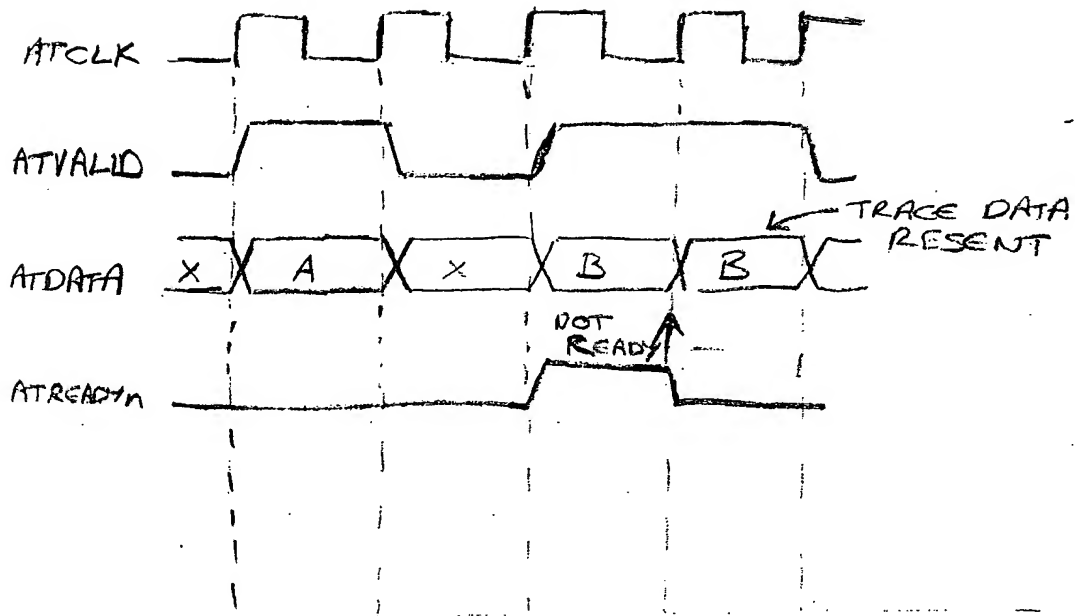


Fig. 4

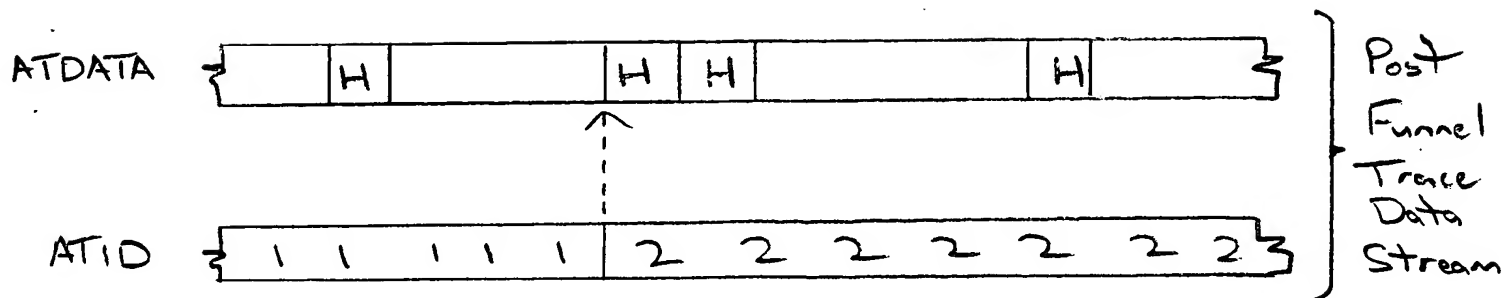
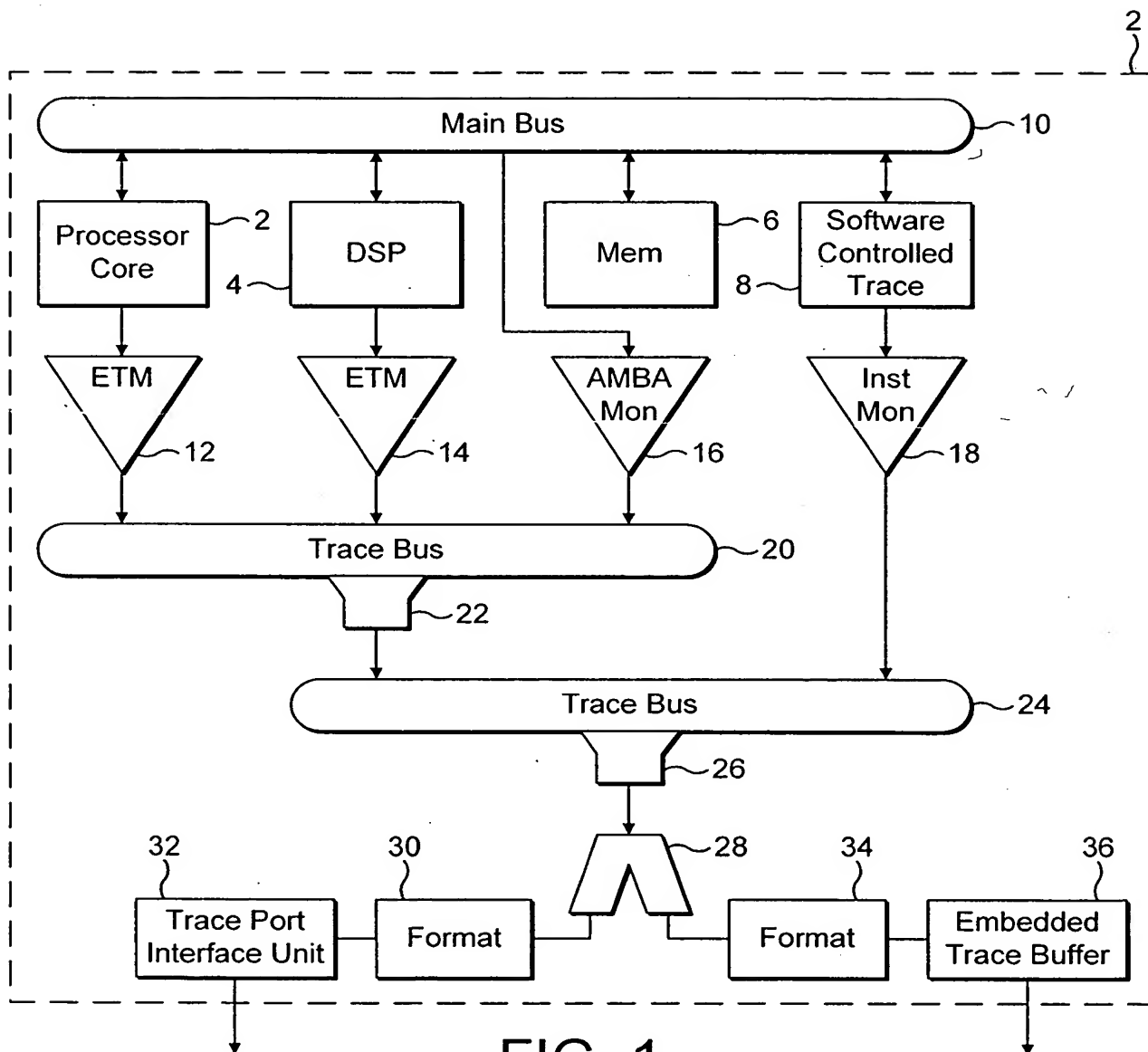
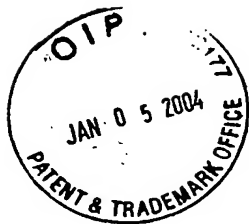


Fig. 5.



2 / 3

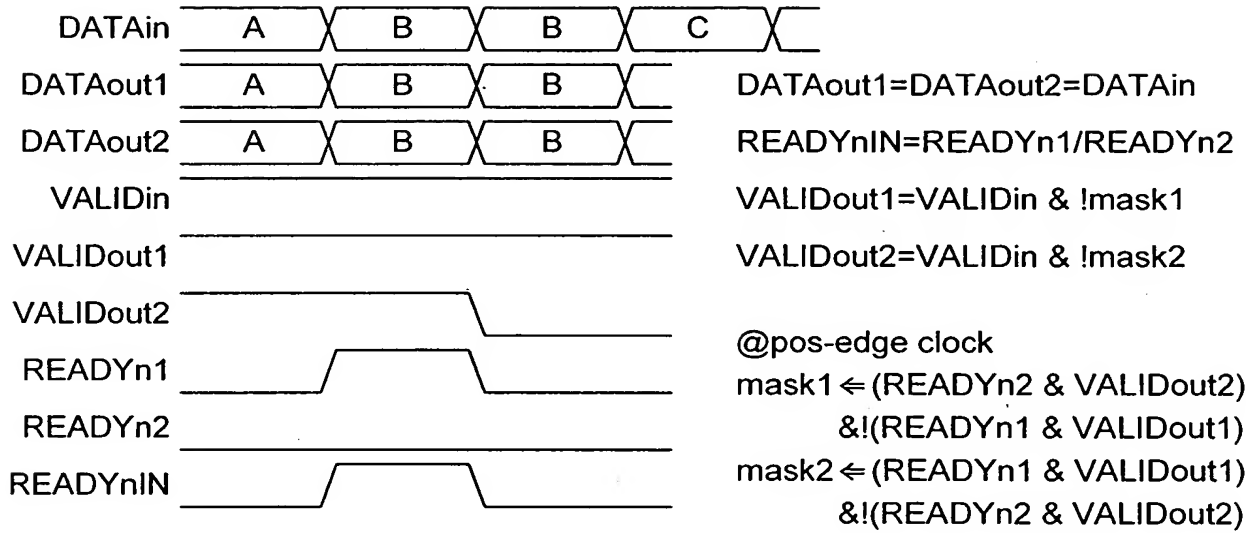


FIG. 2

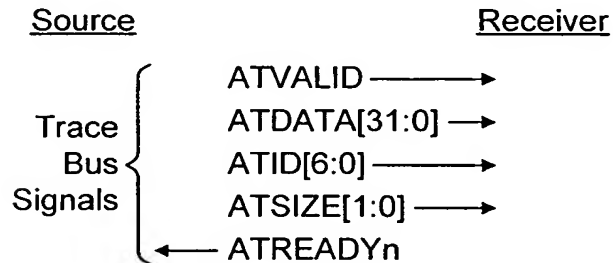
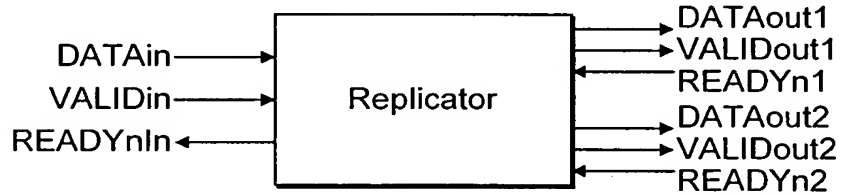


FIG. 3

3 / 3

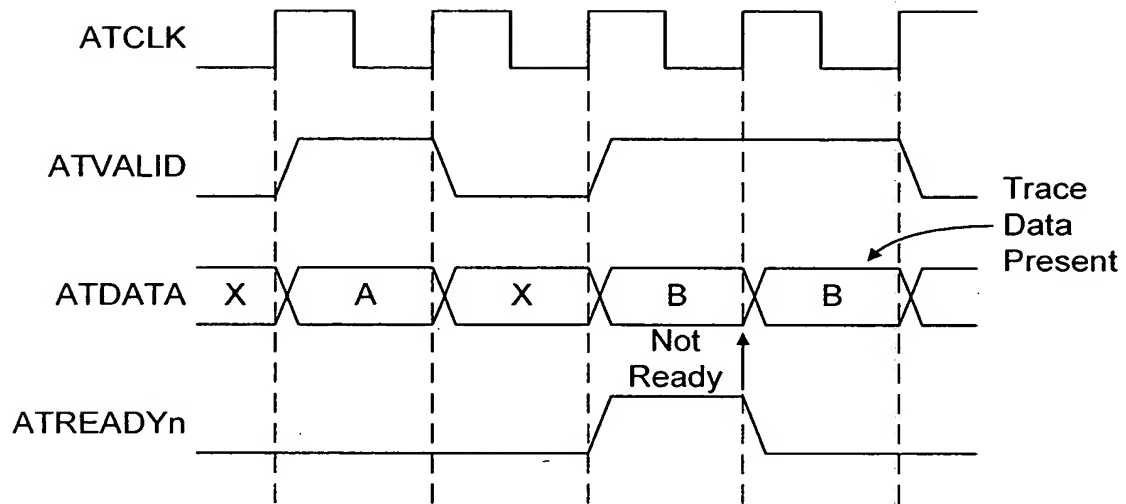


FIG. 4

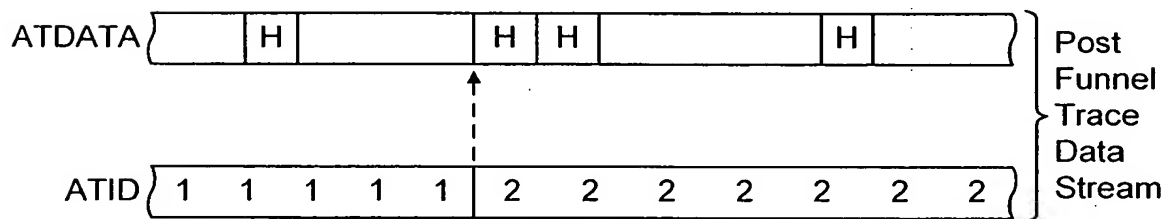


FIG. 5